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ABSTRACT

Recommendations of the National Institute of Education (NIE) Laboratory Study Group are presented to the director of NIE. The study group reviewed the history and status of the laboratories and examined laboratory issues and options. Recommendations are offered regarding: laboratory purposes, laboratory governance, NIE management of labs, regions, funding levels, and alternative laboratory designs. Specific recommendations include the following: the main purpose of laboratories should be to foster improvement in education through the application of research; laboratories should offer a range of research and development services needed in their region and should emphasize the application of research to improve policy and practice; NIE should establish active systems for coordination between NIE and the laboratories and centers; the federal government should increase NIE funding by 50 percent, with a proportionate increase for expanding and strengthening regional laboratory services; and NIE should explore opportunities through which laboratories and their clients could engage in cost-sharing strategies. Appendices include a framework for examining issues and alternatives related to laboratories, a description of option 4 (laboratories providing direct service to local schools), and a description of option 5 (laboratories specialized in various substantive areas. An executive summary is also included. (SW)

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EXPANDING AND STRENGTHENING NIE'S REGIONAL LABORATORY SERVICES:

NEEDS, ISSUES, AND OPTIONS

FINAL REPORT

OF THE

NIE LABORATORY STUDY GROUP

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IDEAS 768

SUBMITTED TO:

Dr. Manuel J. Justiz
Director
National Institute of Education

October 3, 1983

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Preface

The Laboratory Study Group consisted of sixteen persons who brought to their task views gained from a wide range of experience in educational policy, practice and research. The purpose of the Group was to develop recommendations and options for the Director in major decision areas related to planning for the competition of regional educational laboratories. Issue areas addressed by the Study Group included purposes and functions, accountability and governance, funding, and laboratory service regions.

Study Group members met in two three-day sessions after reviewing voluminous background materials on the history and status of the laboratories, legislation and policy statements currently governing laboratories, and public testimony from the eleven Open Meetings NIE held regarding the forthcoming competition. A series of staff papers helped focus issues for further consideration and discussion by Study Group members. Additional resources in the form of written materials or special presentations were requested by the Group and supplied by NIE staff as needed. These included a useful discussion with a distinguished former laboratory director.

The recommendations contained in the following report represent areas where there was consensus among members of the Study Group. The illustrative set of laboratory options presented in the report, along with their strengths and weaknesses, represent a range of possibilities for consideration by the Director. The options are not intended to be fully developed models, to represent an exhaustive set, or to be mutually exclusive.

The Laboratory Study Group commends the Director and the staff for the thoroughness that was evident in preparations for the meetings and the openness that characterized their facilitation of Study Group deliberations. The issue papers prepared by staff were invaluable in stimulating thought and discussion.

The Laboratory Study Group encourages and expresses its confidence in the National Institute of Education as it moves forward with the vital challenge of strengthening and expanding laboratory services through nationwide competition.

FINAL REPORT OF NIE LABORATORY STUDY GROUP

--Executive Summary--

The NIE Laboratory Study Group concludes that:

1. Educational research is a vital tool for improving the quality of American education, and support of such research is an appropriate and essential federal role.

2. NIE's Laboratories and R&D Centers are critical components of the total R&D and education improvement system in the United States. Their impact is more than commensurate with the resources invested -- which at present are a drop in the bucket relative to the total investment in education and to the magnitude of the task of achieving urgently needed improvements in the quality of American education.

3. The public generally favors increases in educational research, but in order to reach the levels of research required for major advances in education, the educational research community and the National Institute of Education must achieve higher levels of public confidence and support than have been known in the past.

4. The NIE is now positioned to achieve such gains through a well planned and executed recompetition of the regional educational laboratories and R&D centers which will:

   -- renew the credibility of sponsored laboratories and centers through open competitive procedures;

   -- extend services equitably to all parts of the United States;

   -- establish scopes of work that are pertinent, timely, and based on current knowledge;

   -- focus squarely on goals of achieving excellence in every American classroom; and

   -- establish a strong working relationship between NIE and its laboratories and R&D centers that emphasizes sound management and accountability, productive cooperation, and coordination of effort.

In helping NIE plan for the recompetition, the Laboratory Study Group has reviewed the history and status of the laboratories and examined a wide range of laboratory issues and options. This activity resulted in the following major recommendations.

Recommendations

1. Laboratory Purposes

   a. The central purpose of laboratories should be to foster improvement in education through the application of research.

   b. Laboratories should offer a range of R&D services needed in their region, but should emphasize transformation and delivery of research in forms that are useful for improving education policy and practice.

   c. Laboratories should foster cooperative educational improvement activities among various constituent groups in their regions.

2. Laboratory Governance

   a. A laboratory's board should be composed of representatives of the groups it serves.

   b. Laboratory boards should have provisions for rotation of membership and constituent participation in the selection of members.

3. NIE Management of Labs

   a. NIE should develop an advisory structure to provide guidance regarding the Institute's management of the laboratories and centers.

   b. The role of the institutional monitor should be strengthened.

   c. NIE should establish active systems for communication and coordination between NIE and the laboratories and centers.

   d. NIE should clarify the relationships between laboratories and centers and provide necessary guidance to enhance cooperation and minimize duplication.

   e. NIE should work with the laboratories to develop a system for assessment and accountability that will gather evidence of effectiveness and encourage sharing among institutions of what is being learned about successful service delivery.

4. Regions

   a. Laboratories should serve specified geographic regions, generally including not fewer than three nor more than six states each.

   b. All parts of the Nation must be included in the specified service regions of laboratories.

5. Funding Levels

a. The Federal government should increase NIE funding in the immediate future by fifty percent (50%), with a proportionate increase for expanding and strengthening regional laboratory services.

b. Funds should be allocated among laboratory regions based on appropriate measures of the need for services.

c. NIE should develop a 5-year fiscal plan to strengthen the laboratories and bring all laboratories to a funding level sufficient to support cost-effective services to all groups served.

d. In addition to their basic funding level, laboratories should be given opportunities to compete for additional resources to carry out special-purpose assignments consistent with their fundamental purposes.

e. NIE should carefully explore opportunities through which laboratories and their clients could engage in cost sharing strategies.

6. Alternative Laboratory Designs

a. Laboratories should continue to serve multiple constituencies, but should be encouraged to focus resources for more concentrated impacts.

b. Consideration should be given to laboratory designs which can

--improve services to state and local policy makers

--strengthen the research-based content of professional training and development programs

--work through and strengthen a variety of organizations that can assist districts and schools to engage in research-based improvement.

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EXPANDING AND STRENGTHENING NIE'S REGIONAL LABORATORY SERVICES:
NEEDS, ISSUES, AND OPTIONS

NIE is a Valuable Resource

More than at any other time in American history, a growing consensus holds that the federal government's role in educational research is pivotal. One national study after another has assessed the state of education and concluded that major changes are needed in order to serve the national interest. Our children deserve an educational system that draws more effectively on the available resources.

As one such resource, the National Institute of Education is essential to American education. Through the work of the institutions and individuals it supports, NIE can offer solutions to the diverse problems of our nation's schools.

At the very time when the need for this national resource is most apparent, the capabilities of NIE have been servely curtailed. This trend is directly counter to the goal of revitalizing the educational system of "a nation at risk". Accordingly, we offer the following recommendations for strengthening and maintaining NIE as a potent force in the educational process.

- The National Institute of Education must have funding at a level adequate to address the research needs of two million teachers, the 100,000 schools, the 16,000 school districts, and the 50 state policy systems serving 46 million children.

- We endorse the goals enunciated by the Director of the National Institute of Education and reflected in his recent actions, including:

  --- Establish each (NIE) program as an integrated set of logically related activities that expand the knowledge base, strengthen the R&D system, and promote improvement of practice.

  --- Establish firm ties not only with professional associations, but also with scholars in disciplines pertinent to program focuses, with programs serving as catalysts to high-quality scholarly activity, attracting to problem areas strong scholars from diverse fields.

  --- Establish effective collaborative working relationships between various separate elements of the education, research, and policy structures (e.g., researchers, teachers, local boards, administrators, teacher preparations institutions, parents, business groups and elected officials).

- o We acknowledge the importance of giving attention to emergent priorities, but urge that it be done without abandoning stable commitments to effective long-term programs of research, development, and service.

- o The mission of NIE must not be limited to the support of a few institutions but should extend to the funding of basic research and research applications in a wide variety of settings.

Laboratories are a Vital Link between Research and Practice

Effectiveness of practice in education can be substantially improved by systematic application of scientifically tested knowledge regarding teaching, learning and development, and education management. Much of this knowledge has been generated by research and is ready to be put to work. Some of it already is being applied, albeit in too few classrooms. The task now facing the National Institute of Education is to facilitate both expansion of the knowledge base and communication of its implications to practitioners and policymakers including the dissemination of effective practice.

After reviewing studies and other information from a variety of sources, we conclude that the regional system of educational laboratories has made important contributions to the goal of moving educational research into practice. We also believe that the system of laboratories has the potential to be a more potent force for improvement in American education than is now the case. Yet, the existing system of regional educational laboratories, a vital link in the process of educational improvement, is underfunded, and some geographic areas of the nation are now unserved or only partially served by laboratories.

Increased Federal Support is Essential

We, therefore, call upon the Federal government to increase NIE funding in the immediate future by Fifty percent, with a proportional increase going to the regional education laboratories. The Study Group believes that such a modest federal investment in educational research and development would enhance the quality of education and be a wise use of federal education dollars.

Observations and Recommendations on Laboratory Issues

Study Group discussion centered on issues related to the purposes and functions of laboratories, the allocation of resources for laboratory support, governance and accountability for effective laboratory operation, and laboratory regions. Major observations and recommendations of the Study Group are presented within the framework of these issue areas.

Major Purposes of Laboratories

Through its discussion the Laboratory Study Group identified a broad set of purposes it believes labs should try to achieve. They are:

1. To conduct a range of research, development, and service activities of direct interest to teachers, administrators, policymakers, local boards, teacher preparation institutions, parents and business groups. Laboratory responsibility would be relatively less in the area of research and relatively greater in development and other transformations of research to directly useful products and processes. Further, laboratories should actively study their own design and management of effective service improvement strategies.

2. To enhance the teaching of children and the operation of classrooms and schools by communicating with teachers, administrators, teacher educators, and other who work in school improvement activities about knowledge gained from pertinent research and by assisting them in its use.

3. To build confidence in and support for educational research and development activities.

4. To foster coordination and cooperation among the various constituent groups, including, but not limited to, policymakers, teachers, administrators, researchers, parents, teacher educators, and others interested in children and learning.

Resource Allocation

The Study Group noted that, as a result of past history, there is a severe imbalance in the distribution of laboratory funds among the present regions. For example:

- Lab funding ranges from $800,000 to nearly $3 million per year, and several regions do not receive full service from any laboratory.

- Current funding patterns result in substantial "inequities" in resources available to different client groups based on their laboratory region. One lab is funded at nearly $800,000 for each state it serves; another receives little more than $100,000 to serve each

its member states. Lab funding on a per student basis ranges from 20¢ to $1.50 per year; on a per school district basis the range is from $300 to $1,000 per year.

In planning for competition of a nationwide system of laboratories, NIE should devise a method for allocating funds among regions based on appropriate measures of needs for services. We recognize it is not a simple matter to develop a formula approach to laboratory funding. The appropriate factors to consider are obviously dependent on decisions as to the primary clients and key functions that will be mandated for labs Study Group members suggested that the following factors be considered in the development of a formula:

- Number of entities or individuals served, such as states, local and intermediate school districts, school administrators, teachers, parents, or students.

- Special factors which could influence the costs of providing services, such a geography (e.g., the size of the region), proportion of special needs populations, or presence of other R&D organizations providing related services.

- Possibly uniform provision of funding for core institutional functions such as governance, administration, needs assessment and cooperating activity with NIE and other laboratories and centers.

The Study Group further recognizes that application of any formula will result in a reduction in services from present levels in some regions unless the current budget for NIE and for the laboratory program is increased. As we expressed earlier, we urge NIE and the education community at large to seek additional resources for proven R&D strategies. To this end, we suggest that NIE develop a 5-year fiscal plan to strengthen the laboratory program, to outline to Congress and other groups a phased effort to develop new institutions in unserved regions, and to bring all laboratories to a funding level sufficient to support cost-effective services to all groups served.

As additional funds are made available to NIE, the Study Group recommends that NIE provide some resources for competitive opportunities for laboratories, consistent with their basic purposes. We are convinced laboratories possess a unique perspective on educational problems and R&D processes. Accordingly, they constitute a unique institutional capability to carry out many special-purpose assignments. NIE and the labs would benefit from the conduct of competitions among the laboratories on high priority national problems.

Finally, the Study Group recognized the importance of laboratories seeking other funding sources to expand the impact of their core NIE support. Some labs have been very successful in competing for funding from other federal and state agencies, and in developing products and services which can be marketed on a regional or even nationwide basis. We assume this is a desirable pattern for all labs and urge that NIE

require competitors for laboratory awards to outline plans to develop supplemental forms of funding. Further, NIE should assess the strategies employed by successful labs in this area. However, we also urge that the Institute continue and strengthen its emphasis on restricting the labs' developmental efforts to areas closely related to their core functions.

Laboratory Goverance

The Study Group was impressed with the importance of the role of governance in the effective functioning of regional laboratories. The group's observations and recommendations deal with two major governance issues: how individual lab boards should function, and how NIE works with these boards. On the first issue, even from limited data on current practices, it is clear that a number of laboratories have boards of directors and other advisory systems which represent well the key interest groups in their regions and contribute in a major way to effective management, priority-setting, and quality programs. At the same time, it is apparent that some institutions need improvement in this area. NIE should establish policies for the competition which ensure that all those being served have a say in the governance of the laboratories.

We recommend that regional laboratory boards be composed of representatives of all groups that laboratories serve. Specifically, boards should include interests such as chief state school officers, professors of education, school administrators, classroom teachers, school board members, legislators, parents, and private-sector participants. Boards should be balanced regionally by state. The term of board members should be for a definite time period and each member should be restricted to a set of number of terms. We suggest that labs develop a means for regional constituents to participate in selecting board members; lab boards should not be self-perpetuating.

The functions of the board should include, but not be limited to:

a) establishment of annual and long-term goals;

b) establishment of policies and procedures;

c) approval of programs as submitted by the laboratory and suggested by the board;

d) review of fiscal management of the laboratory including annual audits;

e) communication with constituents and NIE;

f) oversight of compliance with the requirements of contracts and state and federal laws;

g) evaluation of effectiveness of the laboratory--both programmatically and fiscally;

h) oversight of the conduct and progress of programs, research, and technical assistance; and

i) hiring the Executive Director.

The Study Group also expressed concern about the lack of constructive NIE involvement with laboratory governing boards. While there is a record of past NIE efforts to improve the representative character of individual lab boards, NIE has not developed effective ways to communicate with boards, to observe their functioning, or to involve them in joint planning with the Institute on matters of policy or in helping to shape the agenda for research and development.

To improve interaction between NIE and lab governing boards we recommend that the Institute strengthen its system of Institutional Monitors, perhaps recasting the role as Institutional Liaison. At a minimum we recommend that each Institutional Monitor (or Liaison) meet with the governing board of the laboratory to discuss progress, problems, and plans for the future. We suggest that NIE also explore with laboratories means of communication between NIE and boards. We also caution that this communication should include simultaneous and consistent involvement of lab Executive Directors, to prevent confusion or conflicting messages.

Our final recommendation in this area is for the NIE Director to appoint an Advisory Group on Lab and Center Policy with representation from the chairpersons of the lab and center boards and an equal number of at-large members. Functions of this group should include:

- o discuss and advise on NIE policies concerning laboratories and centers;
- o develop improved communication among labs and centers;
- o advise on national priorities for additional lab and center activities and for other forms of NIE sponsorship; and
- o review annual reports of laboratories and centers and develop other systems for assessment of these institutions.

An alternative proposal for establishing a system of governance and advisory boards is outlined in Appendix A.

NIE Management of Laboratories

The Study Group focused its attention primarily on what labs should do and how NIE should carry out the upcoming competition. However, the group also observed that the effectiveness of the lab and center program is affected by how NIE works with these institutions. NIE's responsibilities include:

(a) setting policies for the laboratory and center program;

(b) developing and communicating a framework of substantive priorities;

(c) reviewing proposals for projects and institutional functions;

(d) monitoring the programs, management and fiscal operations of individual institutions;

(e) evaluating the labs and centers as an integrated program or system; and

(f) facilitating communication and interaction between individual institutions.

While NIE has developed constructive policies in many of these areas it appeared to the Study Group that the relationships between NIE and the labs and centers are characterized more by conflict and competition than by collaboration. Some tension between sponsoring agencies and their grantees is inevitable and may even be healthy, but the Study Group concluded that in this instance the current relationship limits the effectiveness of NIE and the labs and erodes public support for funding of educational R&D.

The competition of laboratories offers an occasion to assess the root causes of these problems and forge a new, complementary relationship between these institutions and NIE. We strongly urge that the NIE Director and other top managers make this issue a very high priority. An we suggest that new strategies, policies, and practices be developed jointly with representatives of the labs and centers and/or governing boards.

The relationship between NIE and the regional labs should demonstrate that institutions can work together to make significant improvements in education. This relationship must not be adversarial but mutually supportive, thus creating an atmosphere of trust and reciprocity.

In our earlier recommendations on governance we included several ideas for improving communication and interaction between NIE and the governing boards of labs. To these suggestions, we add the following:

- NIE should clarify the relationship between labs and centers and provide guidance to enhance cooperation and minimize duplication. Particularly, given the

possibility that new institutions will be joining the lab and center network, NIE needs to restate the distinctions in primary missions and functions between labs and centers. NIE should develop program strategies to link the work of labs and centers. Obvious examples of this potential are for labs to disseminate research results from the centers; for labs to share products and publications developed in other regions with their own clients; or for the needs assessment process of labs to be used to provide input and feedback to centers from practitioners and policymakers.

- o NIE should work with the labs to develop a system for assessment and accountability. While individual labs and centers carry out program and management reviews and NIE reviews proposals and deliverables from each institution, the Study Group was concerned about the lack of a basic evaluation system for the labs and centers. This mechanism should involve both NIE staff and "peer reviewers" who represent the perspectives of both clients and collaborators of the labs and centers. Such a system should have at least two purposes:

  (a) to develop and review evidence of the impacts and cost effectiveness of the lab program; and

  (b) to learn about effective and ineffective strategies for applied research, dissemination, school improvement, and other functions.

- o NIE should develop regular systems of communication with the labs and centers. We strongly urge that directors of regional labs should meet at least semi-annually with the Director of NIE. The agenda for these meetings should include discussion of the labs and their effectiveness.

- o NIE and the labs should interactively develop plans for addressing national priorities. NIE should establish a five-year R&D agenda focused on the remediation of identified weaknesses in American education. In response to this agenda, the lab and center directors should submit to NIE tentative plans for their activities. After consultation with staff, the NIE Director should meet with each lab or center director to modify in a mutually acceptable fashion these long-range plans. The NIE Director and the directors of labs and centers should then meet every six months to review progress in the implementation of the plans. The NIE Director should update the R&D agenda annually.

Laboratory Regions

The Study Group observed that the present laboratory service regions are the result of incremental adjustments, leaving some regions with little or no service, some with overlapping service, and wide variations in the size of regions--conditions that are difficult to defend. For instance:

- There are two regions with no more than two-and-one half states each, while the Midwest region, as served by CEMREL, had a total of 10 states. One region has 5% of the nation's population while the 10-state Midwest region accounts for more than 25% of the nation's people.

- Three regions of the country, the Northeast, the Southeast and the Midwest, as well as the District of Columbia, the Virgin Islands and Puerto Rico, are unserved or receive only partial service from regional laboratories.

- Several states, including California, Nevada, Missouri, Ohio, Pennsylvania, Kentucky and West Virginia, have received services from two laboratories.

The Laboratory Study Group views the nation wide competion as an opportunity for the Institute to redefine laboratory service regions so there can be a more even distribution of lab services. Specifically, the Study Group recommends that:

- Laboratories should serve specified geographic regions, generally including not fewer than three nor more than six states each; and

- All parts of the nation must be served by the laboratories; each state or territory should be assigned to a specific lab region for the purposes of receiving services and participating in the governance of the laboratory.

The Study Group realizes that there are a number of approaches the Institute could take to improve the pattern of laboratory service regions. These could range from making necessary adjustments in the current regions to developing a completely new configuration. The Study Group takes a no position on the approach NIE should use in making needed changes in lab regions. However, considerable interest was expressed by some members of the Group in expanding laboratory services by increasing the number of separate laboratory regions to as many as 15.

Alternative Conceptions of Laboratories

The Laboratory Study Group was asked to identify and analyze a variety of laboratory design options which NIE could consider in preparing for a recompetition to strengthen the regional laboratory program. In addition to examining the existing "general purpose" laboratory model, which has multiple constituencies and fulfills multiple purposes, the Study Group considered five more narrowly defined options.

The five options considered were:

1. Laboratories focusing on research and technical assistance for education policymakers in state and local government, including and boards of education.

2. Laboratories working with a broad array of assisting organizations to improve local district, school, and classroom practice.

3. Laboratories focusing on improvement of professional training and inservice development of teachers and administrators.

4. Laboratories providing direct service to local schools.

5. Laboratories specializing in various substantive areas (e.g., reading, math, science, technology, finance).

The first three of these options are presented below as Options 1, 2, and 3 for further consideration. However, the Study Group does not feel that Options 4 and 5 are promising as models for NIE's regional educational laboratories. They are described in an Appendices G and H but are not being recommended for further consideration.

The present system is described here as a composite of features found commonly, although not universally, in existing laboratories. This approach is referred to as a general purpose laboratory approach, in contrast with the other five options--each of which focuses on a particular specialization by according to audience or subject matter. The general purpose laboratory stands ready to respond with a variety of R&D and dissemination services to any priority of any major constituency in its region, and NIE's program guidelines allow the regional boards and laboratory directors broad flexibility to allocate their resources accordingly.

The general purpose model has a number of advantages, including being able to (a) build a diverse constitutent base, (b) promote cooperative improvement activities among many different kinds of organizations with which the laboratories routinely interact, and (c) address educational problems in a comprehensive or holistic way by working out agreements among the many kinds of constitutents served.

High among the disadvantages of this model, however, is that aspirations and expectations far exceed available resources. Current funding levels permit laboratories to have productive contact with and provide high quality services to only a small fraction of the many thousands of individuals that they exist to serve. A second major disadvantage of the general purpose design is that efforts may appear diffuse and difficult for the public or potential constitutents to understand and appreciate.

Options 1, and 3 are recommended as ways of focusing scarce laboratory resources in ways that could create more concentrated and observable impact, increase the coherence and distinctiveness of laboratory programs, and serve a number of constituencies that do not appear to benefit greatly from educational R&D and dissemination services at this time. While each option is presented as a stand-alone design, the Study Group assumes that these and other laboratory focuses can be combined in order to provide a more balanced activity or to fit the range of unique lab requirements of different regions of the United States.

The three special purpose laboratory options that the Study Group recommends for consideration are as follows:

Option 1: Laboratories Focusing on Research and Technical Assistance for State-level Policymakers

Rationale. Labs would seek to improve education by providing assistance to governors, chief state school officers, state boards of education, state legislators, and other groups involved in the formulation and execution of education policies and programs at the state and local level. These groups have not received significant attention from laboratories in the past, but they are increasingly important in determining the resources, standards, and external mandates for local schools and districts. State policy audiences are a manageable target for impact, given the resources available for labs and their regional structure.

Purposes. The purpose of laboratories would be the improvement of educational quality through providing research, technical assistance, and dissemination support to state and local policymakers.

Clients. The primary clients of laboratories would be state policymakers such as governors, chief state school officers, state board of education members, state legislators, and state associations of educators. A secondary client group would be local districts, intermediate units, and higher education units concerned with teacher training or assistance to educational institutions. Labs would also contribute R&D efforts on selected national priority problems.

Functions/What labs do. Labs would place a heavy emphasis on research on policy alternatives, documenting the implementation, costs, and impacts of different state approaches to problems such as setting standards, improving teacher quality, testing and accountability programs, school improvement initiatives, and assisting schools and districts with innovations in educational technology. Labs would also develop or package resources for policymakers in forms such as directories, audiovisual materials, syntheses of research, and referral to resources. Labs would assist other clients in conjunction with their involvement in state-initiated policies and programs, or with local policy issues such as teacher compensation and graduation requirements.

Source of priorities. Labs would divide their work between regional needs/priorities, determined by needs assessments of appropriate client groups; and national priorities, determined by NIE. Roughly one-third of each lab's resources would be devoted to national priorities; one-third to state level priorities; and one-third to local priorities.

Degree of NIE coordination. NIE would play a relatively strong role in coordinating the work of laboratories. NIE (in conjunction with lab representatives) would be responsible for setting the agenda of national priorities, promoting the exchange of results of projects between labs, recognizing outstanding research of interest to lab clients, and conducting systematic evaluations of the work of labs.

Interconnections. Individual labs would build links between policymakers within their regions through involvement in governance,

planning, and project activities. Labs would also be linked into a variety of national policy networks, in conjunction with national groups servicing state policymakers, such as NCSL, ECS, NASBE, NGA, as well as NIE research centers concerned with policy research.

Governance. Lab boards would be primarily composed of representatives of key client groups in the region (perhaps 50% state policymakers and 50% other audiences). In addition, each lab board would include one representative, appointed by NIE, from outside their region, to provide alternative perspectives on issues. Lab boards would be limited to a maximum size of 25 members. Other advisory/policy groups would also be employed by laboratories for planning and oversight of particular projects, for needs assessment and evaluation of lab work in different states, or for other purposes.

Regionality. This option would be workable for labs of roughly the current size, i.e. covering four to eight states. Three optional approaches were suggested for developing boundaries for the laboratory system. First, the current lab regions could serve as a starting point, with states being offered the option of joining another region at their own initiative. Second, regions could be developed on the basis of similar economic, demographic, and political conditions - underlying factors in determining common educational problems and issues. Third, the ten existing Department of Education regions could form the initial basis for lab boundaries, with state-initiated adjustments if desired.

Funding. Funds would be distributed to laboratories through a formula including three factors: (a) an equal institutional or administrative budget for each lab to cover the core functions of planning, management, evaluation, facilities, etc.; (b) an allocation for service to state policymakers based on the number of states included in each lab; (c) an allocation for services to local institutions and groups based on measures of the numbers of needs of those audiences. This model of laboratories would also place a strong emphasis on requiring matching funds from states and other clients for each research or service project. This mechanism would ensure that work is targeted on high priority issues and would create an incentive for clients to monitor the quality of lab efforts.

Advantages	Disadvantages
o The size of the target group would be manageable and a large proportion of the target group could be reached.	o Would result in some resistence by existing labs.
o Services could be more sharply defined and more easily evaluated.	o Would require changes in NIE procurement.
o Would provide opportunities for cost sharing at state and local levels.	o Would have direct effect on children.

Advantages

- All labs would address some national priorities.
- Present a politically realistic and acceptable approach.
- Would facilitate sharing of research based policy alternatives from lab to lab and from state to state.
- Would be less costly than present approaches.

Disadvantages

- Would result in possible loss of trust and support by practitioners because services would be goint to new clients.
- Effort may not achieve desired results because it requires such a significant change in the orientation and functions of institutions.

Option 2: Laboratories Working With a Broad Array of Assisting Organizations to Improve Local District, School and Classroom Practice

Rationale. Labs, by working with and through organizations that already have assistance relationships with schools and classrooms, would conserve resources and in the end achieve greater benefit from their efforts. Labs are uniquely situated to acquire research outcomes and develop materials and strategies that can be used by other organizations that are closer to schools than labs, are more numerous than labs, and that have their own resources to devote to helping schools improve their programs.

Purposes. The main purpose of laboratories would be the improvement of practice at local school and classroom levels by providing resources to and strengthening the capabilities of assisting organizations. However, labs would also work on related issues at district and state levels.

Clients. Labs would continue to work with SEAs and others, who in turn provide improvement assistance at local district, school and classroom levels. However, labs would also identify as clients an expanded set of groups who also have the potential to influence the quality of practice at the local level: LEAs, NDN state facilit tors, intermediate units, teacher associations, school study councils, parent training groups, college and university assistance units, business groups, etc. Laboratories would work directly with schools only when developing and field testing improvement strategies and resources.

Functions/What labs do. Lab activities would be designed to strengthen and facilitate the assistance work of their client organizations. Such activities would include:

- o synthesis of research knowledge;
- o developing strategies for communicating research knowledge;
- o field testing training and dissemination strategies and materials;
- o training clients in the use of materials and formats developed by labs;
- o studying the process of knowledge use;
- o building networks of assisting organizations; and
- o acting as a clearinghouse for sharing resources.

Labs would not do original research on general educational issues.

Source of priorities. Labs would conduct needs assessments drawing upon this expanded set of c.ient groups to help define needs. Priorities would arise principally from field need, and labs would use only a small portion of their resources to respond to national needs.

Degree of NIE coordination. NIE coordination would consist of setting a broad framework of acceptable national priorities, and of facilitating cooperation and sharing across lab regions.

Interconnections. Labs would link assisting organizations in the region with one another and with producers of research, and would facilitate collaborative efforts where appropriate. Labs then would work with one another across regional boundaries to share materials and strategies and to locate resources. Research on educational topics would be drawn from all sources, but particularly from the centers, the universities and from NIE. As necessary, labs would translate research into formats with practical application to educational problems. Labs would engage in field tests of those materials, assisted by their client organizations.

Governance. Lab boards would have representation from the wide array of assisting organizations that form their client group, as well as representation from the schools, districts or others who receive assistance from those organizations.

Regionality. Although this alternative could operate using the present regional configuration expanded to cover the whole nation, the group believed that a larger number of labs would be preferable. Regions of three to four states would facilitate closer client relationships while maintaining the advantage of sharing across state boundaries.

Funding. An increase in the number of lab regions implies an eventual increase in the total funding level for labs. Since the number of assisting organizations would vary from state to state, perhaps tied to population, it might be necessary to develop a funding plan to account for differences in the number of clients and other need factors.

Advantages	Disadvantages
o Each lab could work with the strongest, most effective organizations in its region.	o As strategies and resources brokered out, they may be adapted in non-beneficial ways.
o Would focus on practitioners as direct beneficiaries.	o The number of assisting organizations varies greatly from state to state and region to region. Some regions will have too many organizations for a lab to work effectively, given limited resources. Others will have too few to make the strategy effective in producing local impact.
o Labs could be more visible and more politically viable if the strategy were successful. The assisting organizations would become a constituency.	o Working through intermediaries may dilute the ultimate impact.
o The narrower focus (local improvement) would make it easier for labs to be effective and to evaluate their impact.	
o Would encourage service oriented programs.	

Advantages	Disadvantages
o Working with a variety of existing organizations would multiply limited resources.	o Visability and accountability could become harder to achieve because organizations other than labs would share the responsibility for most products and services.
o The approach has the potential to reach diverse populations in the regions.	
o Both the focus on assistance related to school and classroom practice and the collaboration with a range of organizations helps assure that regional governance mechanisms will be responsive and effective.	

Option 3: Laboratories Focusing on Improvement of Professional Training and Inservice Development of Teachers and Administrators

Rationale. Effectiveness of practice in education can be substantially improved by systematic application of scientifically tested and proven knowledge regarding teaching, learning and development, and educational management. Many practitioners, and professional developers as well do not have a working knowledge of the tested principles that underlie effective practice, particularly those principles which have emerged from research in recent years. Labs are uniquely situated to provide needed assistance in this area to a wide range of institutions, organizations, and units within their regions that have responsibility for the professional training and development of educational practitioners.

Purpose. The purpose of laboratories would be to improve educational practice in their regions by helping professional trainers and developers provide current and prospective practitioners with a working understanding of, and skill in the application of, scientifically developed principles of effective educational practice.

Clients. While keeping clearly in mind the needs and interests of students, educational practitioners, and parents, the laboratories would work directly with any institution, organization, or unit in their region having responsibility for preservice or inservice professional training or development of education personnel. Included as direct clients, then, would be schools, colleges, and departments of education (SCDE's); state or local professional associations; local professional development units; and cooperative efforts among such groups.

Functions/What labs do. Labs would perform activities such as the following:

- promote awareness of needs and opportunities for strengthening the scientific foundations of educational practice;
- promote cooperative improvement activities among professional training and development institutions, organizations, and units;
- synthesize the translate research knowledge relevant to improved practice;
- develop information, materials, and delivery strategies needed to enable practitioners to acquire a working knowledge and essential skill in applying scientifically based practices;
- assist in arranging or providing opportunities for professional developers to learn how better to provide practitioners with usable knowledge and skill in applying scientific principles in their daily practice.

Source of Priorities. This option addresses a broad national priority based on findings of the Commission on Excellence in Education and other major studies of the field of education. Priorities for specific kinds of activities and specific educational practices to emphasize would arise from internal assessments within each region and each client organization and constituency of a laboratory.

Degree of NIE Coordination. NIE would indicate broad areas of eligible activities and would promote cooperation between labs, between labs and centers, and with other resource organizations across regions.

Governance. The lab board would include significant representation from the professional training and development community, and practitioners, parents, and other directly interested constituencies.

Advantages	Disadvantages
o The option would provide a needed opportunity to renew professional training faculties.	o The quality of teacher education may explain little of the difference in quality of teaching although this is not unequivocally established.
o It would improve undergraduate, graduate, and continuing professional training.	o Studies show that staff development has limited impact in behavioral change of teachers, unless it occurs in the context where it will be applied.
o It would strengthen the theoretical foundations of daily practice.	o There is skepticism in many higher-educational institutions regarding the validity, expertise, and motives of labs to do this job.
o Focuses on higher education institutions--the one site that will effect all future teachers.	o Relatively few new teachers are being hired.
o The option would promote two-way, collaborative flows of expertise between professors and schools.	o Professional development institutions and associations are too narrow a constituency to maintain support for a laboratory.
o Substantial institutional resources are available for labs to build on and with.	

Options Considered but Not Recommended

Both Option 4 and 5 (described in Appendices G and H) have an initial appeal because of the appearance of relatively direct and intensive connections between R&D sources and end users in classrooms. However, the Study Group feels that focusing on direct and intensive laboratory-to-end-user services is not appropriate for regional laboratories given the extremely high ratio of the number of end users to the number of laboratories and the limited evidence of lateral spread from successful demonstration projects. Regarding Option 5, the Study Group feels that while it may be mutually beneficial and effective for R&D specialists to engage in some direct dissemination and servicing of their products, the education system should not rely on them as the primary means of diffusing new developments in education. Some elements of Option 5 appear to be widely applicable in laboratories, but the option as a whole appears better suited as the dissemination component of a national R&D center than as a model for a regional laboratory.

APPENDICES TO FINAL REPORT

NIE Laboratory Study Group

The following are Study Group products that were considered and used in various ways but not incorporated into the formal recommendations.

APPENDIX A: Proposed Reorganization of Governance and Advisory Structure.
Prepared for the Study Group by Mr. Norman Murdock.

APPENDIX B: Some Persistent Dilemmas in the Design and Management of Regional Educational Laboratories.
A framework for examining issues and alternatives related to laboratories, prepared for the Study Group by Dr. Robert Herriott.

APPENDIX C: Generic Model of Relation of Labs and Centers to the American Education System.
A framework for visualizing how different laboratory options fit into the total educational system, prepared for the Study Group by Dr. Robert Herriott.

APPENDIX D: Excerpts from Supporting Statement for an "Option 4" on Personnel Development.
Prepared for the Study Group by Dr. Robert Egbert.

APPENDIX E: Recommendation for an NIE Educational Sciences Initiative.
A proposed activity stemming from statements prepared for the Study Group by Drs. Robert Egbert and Keliett Min.

APPENDIX F: Invited Presentation by Dr. Larry Fish, Former Laboratory Director.

APPENDIX G: Description of Option 4: Laboratories Providing Direct Service to Local Schools.

APPENDIX H: Description of Option 5: Laboratories Specialized in Various Substantive Areas.

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September 19, 1983

TO: Members of the National Institute of Education
Laboratory Study Group

RE: NIE Reorganization Recommendations Proposed
by Norman A. Murdock

I realize this recommendation is somewhat far afield from the more limited purpose and tasks our NIE Lab Study Group was brought together for in August and September, 1983. However, during our August session it occurred to me that it would be beneficial to at least consider a new and different NIE organizational structure, although the NIE's purpose and role would remain unchanged. I must admit that I came to this conclusion with very very limited, some would say nonexistent, knowledge about the NIE. However, I believe I do understand NIE's basic mission. The NIE's troubled history and uncertain status today led me to conclude that little harm, hopefully much gain, would result from a candid, open, no holds barred review and discussion of this proposal. My basic recommendation is deliberately unfettered. It is a framework which can be modified and built upon through examination and debate. If its essential skeleton and concept are kept in place, I believe it could lead to a significant improvement in the NIE's effectiveness in achieving its mission. Hopefully, this proposal offers a more orderly process for operating and results than now is the case. It seems the current process does not function as efficiently as it should because it has had somewhat of a harum scarum development.

My idea promotes a vertical/horizontal rigidity intended to provide organized efficiency, accountability and results coupled with a horizontal/vertical flexibility to provide for the heterogeneous realities and elements of the education world, geographical regions, the American people, politics and etc. There is a "bottom-up" flow and "top-down" stream. Administration and program, research and development, services and ideas, and supply and demand will move vertically and horizontally through an orderly process.

The following are some of the <u>additional</u> objectives this structure is intended to achieve:

- adequate and needed centralization and monitoring to provide cohesiveness, coordination and continuity
- organizational and operational flexibility
- avoidance of unnecessary duplication

- maintenance of federal perspectives concerning and responding to national needs, goals and objectives as well as providing services

- maintenance of regional, state and local perspectives concerning and responding to regional, state and local needs, goals and objectives, as well as providing services

- integrated national, regional, state and local involvement with sufficient local input, direction, accessibility and visibility

- workable, realistic and practical operations and process in view of NIE constituents' interests and needs, i.e. national, regional, state, local, educational, public, political, etc.

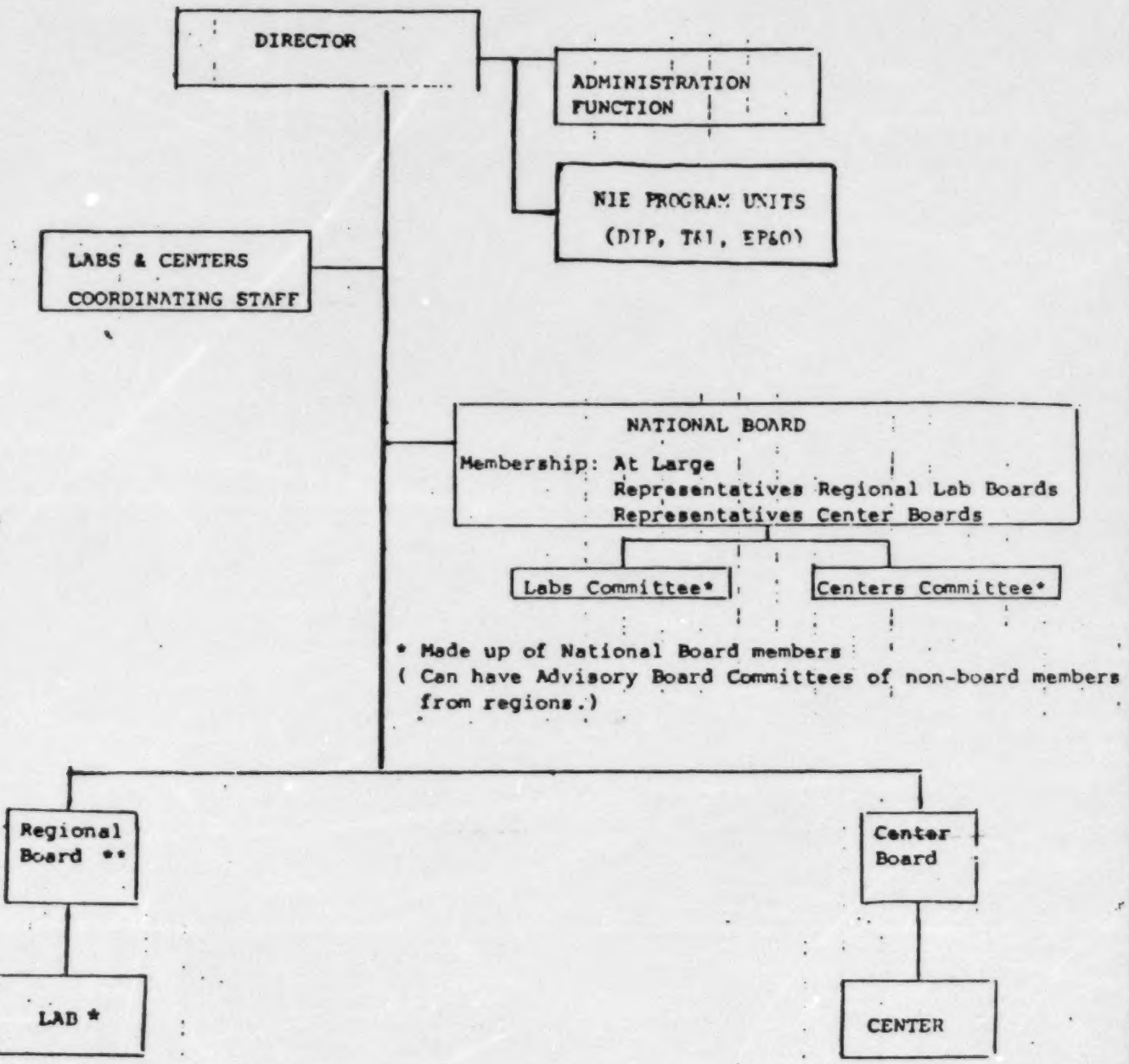
- motivation, maintenance, monitoring and measurement of competitiveness and excellence among labs and centers

- more effective and efficient use of funds

- coordinating more effective and efficient dissemination of information

The recommended reorganization plan is appended.

NATIONAL INSTITUTE OF EDUCATION



Minimum of 10 Regional Labs (e.g., average of 5 states per region)

(Number of R & D Centers and make-up of their boards to be determined. Not treated herein.)

** SOURCE OF LABORATORY BOARD MEMBERSHIPS:

Governor	1	(10)	5 Chairs of State Legislature Education Committees
			3 Local School Admin., 2 civic/bus.leaders
Senator	1	(10)	5 Teachers & 5 State School Board Members
State Ed. Dept.	1	(5)	2 SEA Admin. and 3 Univ./Teacher Col. reps.
School Dist.	1	(5)	Local School Board Members
Parents (PTA's)	1	(5)	
		(35)	Members each board

* Lab Director approved by NIE Director, hired by Lab Board

Norman A. Mindock

Some Persistent Dilemmas in the Design and Management of Regional Educational Laboratories.

A framework for examining issues and alternatives related to laboratories, prepared for the Study Group by Dr. Robert Herriott.

REH
9/19/83

SOME PERSISTENT DILEMMAS IN THE DESIGN AND MANAGEMENT OF REGIONAL EDUCATIONAL LABORATORIES

Type A: Dilemmas related to purpose, rationale or clients.

Type B: Dilemmas related to functions, internal organization or staffing.

Type C: Dilemmas related to priorities, governance, funding or NIE coordination.

Type D: Dilemmas related to regionality or inter-organizational connections

Notes:

1. Within each of the four types the various dilemmas presented on the following pages are roughly ordered from the more general ("macro-dilemmas") to the more specific ("micro-dilemmas").

2. Not all of the dilemmas presented on the following pages must necessarily be addressed by NIE in designing the recompetition. Some will simply need to be addressed by the various competitors in preparing their proposals within whatever constraints NIE elects to impose on the competition.

3. Dilemmas posed in terms of the word "emphasis" are assumed to require a clear choice between the two horns.

4. Dilemmas posed in terms of the phrase "relative emphasis" are assumed to permit some compromise between the two horns.

TYPE A: DILEMMAS RELATED TO PURPOSE, RATIONALE OR CLIENTS

A1. Emphasis on regionally-oriented generalists laboratories versus nationally-oriented specialist laboratories.

A2. Emphasis on a diffused versus focused regional clientele.

A3 Relative emphasis on policymakers versus practitioners versus others as clients.

A4. Emphasis on direct attention to the needs of all clients within a given region versus on disseminating to them the results of targeted demonstrations.

A5. Emphasis on targeted demonstrations in "worst case" versus "lighthouse" settings.

A6. Relative emphasis on the design of a better service improvement delivery system within a given region versus on raising the capacity of users to better utilize the existing system.

A7. Emphasis on diffuse versus focused purposes.

A8. Relative emphasis on proactive versus reactive relationships to clients.

A9. Emphasis on direct (e.g., Lab to LEA) versus indirect (e.g., Lab to SEA to LEA) linkage to end users.

A10. Emphasis on diffuse (e.g., institutional) linkage to SEAs versus focused (e.g., project by project) linkage to SEAs.

A11. Relative emphasis on needs assessment versus service delivery.

TYPE B: DILEMMAS RELATED TO FUNCTIONS, INTERNAL ORGANIZATION OR STAFFING

B1. Relative emphasis on rational versus natural planning in relating laboratory activities to client needs.

B2. Relative emphasis on research versus development versus direct services (i.e., dissemination, technical assistance, training, professional development).

B3. Relative emphasis on the delivery of services versus on research on the delivery of services.

B4. Emphasis on effective dissemination versus effective utilization.

B5. Emphasis on knowledge dissemination versus knowledge transformation (i.e., repackaging).

B6. Emphasis on dissemination of all available knowledge versus only "scientifically validated" knowledge.

B7. Relative emphasis on the dissemination of the labs own materials ("product pushing") versus materials of other service improvement organizations ("general purpose dissemination").

B8. Emphasis on laboratories staffed by generalists versus specialists.

B9. Emphasis on regionally centralized (single office) versus decentralized (satellite offices).

B10. Emphasis on laboratories with "flat" (e.g., many independent projects) versus "hierarchial" (e.g., many projects within a few functional programs) organizational structure.

B11. Emphasis on laboratory staff as budget line items versus as composites of disparate skills.

TYPE C: DILEMMAS RELATED TO PRIORITIES, GOVERNANCE, FUNDING, OR NIE COORDINATION

C1. Emphasis on providing federal funding at a level commensurate with the aggregate of regional needs versus at some lower level.

C2. Emphasis on allocation of scarce resources to where the need is the greatest (e.g., via forumla) versus to where they can be used in the most cost effective way (e.g., via proposal quality, matching funds or cost sharing).

C3. Relative emphasis on nationally-uniform versus regionally differentiated priorities for laboratory activity.

C4. Emphasis on grant versus contract as the NIE funding vehicle.

C5. Relative emphasis at the regional level on planning versus action.

C6. Emphasis on laboratory work plans as "wishful promises" versus formal (e.g., contractual) obligations

C7. Emphasis on exclusively NIE-funded organizations as laboratories versus broadly entrepreneurial ones.

C8. Emphasis on long-term, integrated federal funding of laboratories versus program purchase via sheltered competition versus open competition via RFPs.

C9. Emphasis on federal versus regional definition of the composition and role of the governing board.

C10. Emphasis on small homogeneous versus large heterogeneous laboratory governing boards.

C11. Emphasis on governing board membership on the basis of stakeholder representation versus a broader "statespersonlike" capability.

C12. Emphasis on multi-level versus single-level governance structure.

C13. Emphasis on independent (i.e., autonomous) versus dependent (e.g., nested) governance structure.

C14. Emphasis on limited versus extensive provision for subcontracts, consultancies, mini-grants, etc.

C15. Relative emphasis on long-run versus short-run framework for the periodic evaluation of laboratory effectiveness.

TYPE D: DILEMMAS RELATED TO REGIONALITY OR INTER-ORGANIZATIONAL CONNECTIONS

D1. Emphasis on a small number of regions of many states versus a large number of regions of few states.

D2. Emphasis on laboratory regions as functioning sociocultural entities versus as administratively convenient collections of contiguous states.

D3 Emphasis on highly similar versus highly variable laboratories across the various regions.

D4. Relative emphasis on a uniform versus variable needs assessment approach across the various regions.

D5. Relative emphasis on cross-region versus within-region coordination, collaboration and communication.

D6. Emphasis on formal (e.g., contractual) versus informal interorganizational arrangements between laboratories and other organizations within their regions.

Generic Model of Relation of Labs and Centers to the American Education System.
A framework for visualizing how different laboratory options fit into the total educational system, prepared for the Study Group by Dr. Robert Herriott. August 29, 1983

To: Fellow Members of the Lab Study Group
(with copies to NIE staff)

From: Bob Herriott

Re: A summarization of my picture of American education as a vast and complex "solar system"

I regret that I was unable to participate in our Thursday evening and Friday meetings last week and would like to partially compensate for my absence by offering a summarization and clarification of my conceptualization of American education as a vast and complex "solar system" of service delivery, service improvement and knowledge production organizations. Although when we meet again in September I will endeavor to use this conceptualization to clarify the advantages and disadvantages of the "broker" lab option, it may be useful in our evaluation of other options as well.

My "picture" of the American educational system from an NIE labs and centers perspective is clearly incomplete. I have endeavored to include most of the major forms of organizations we mentioned during our deliberations last week, but my limitations as as a graphic artist forced me to leave some out. (They can be inserted in a revised version if this approach proves useful.) Further my identification of the number of organizations of each type is, in many instances, very approximate. (If having better numbers proves important, that too can be fixed.) Finally, if you are interested in a more explicit sense of where I am coming from in viewing American education in this way please consult the paper entitled "The Organizational and Interorganizational Environment of NIE's Regional Laboratories" which can be found in the Background Papers section of the bound materials provided by NIE. (This memo goes beyond the ideas presented in that paper, but the basic perspective is the same.)

Let me offer a brief overview of the perspective embodied in Figure 1 which is attached. At the heart of this picture of American education are the approximately 2 million classrooms of children which meet each school day of each year--see righthand side of Figure 1. This is where the main productive activity of our educational system occurs--all else is, in some sense, merely ancillary to that effort. Of particular importance is the fact that these 2 million instructional settings are "nested" within approximately 100,000 schools which (for the 90,000 public schools) are in turn nested within 16,000 school districts which are themselves nested within 57 states (or their equivalents). At the school and district levels a series of auxilary organizations exist and must be taken into account,

but for space reasons I have endeavored to portray only school boards (SBs), parent organizations (POs) and teacher organizations (TOs). At the state level the picture becomes even more complex with different organizations (e.g., commissions, committees, court jurisdictions,) within the executive, legislate and judiciary branches of government having a role to play in the creation, funding and/or monitoring of state education agencies (SEAs) and intermediate service agencies (ISAs). (There are many other organizational actors at the state level, but at this time I have singled out only textbook commissions (TBCs).)

For the most part what gets taught in the 2 million classrooms--as well as how it gets taught--has at some earlier point in time been developed or legitimated within a large knowledge production system consisting of social and behavioral science departments in universities, academic research institutes, private research firms and the knowledge production (KP) units of colleges of education. Although this knowledge gets recorded in a variety of forms (e.g., research reports, papers at professinal meetings, college textbooks) its initial dissemination is greatly facilitated by the existence of social and behavior science professional journals.

The large circle in the middle of Figure 1 represents the fact that that the journey from scientific research to classroom practice is not a direct one. It is facilitated (or perhaps mediated) by a large and complex service improvement system consisting of units (e.g., a department or office of curriculum and instruction) within colleges of education, professional associations of educators, SEAs, ISAs, and LEAs, by the many federally funded clearinghouses, programs, projects, institutes and centers, and particularly by those who write or publish textbooks for use in elementary or secondary schools. As in the case of the knowledge production system, all of this communication is greatly aided by the many professional journals and newsletters available to educators.

A picture such as this highlights the rather crowded "solar system" in which the NIE funded labs and centers can probably at best be a small "space station"--if Figure 1 were to be drawn to scale (in terms of either budget or staff size) it would probably have to be about 100 feet square, with the classes circle within the service delivery system eighty feet in diameter and the NIE labs about the size of a penny! (One important aspect of this picture not dealt with in Figure 1 is the "strength" of the links between the various circles. Not all links are at present--or can be made--equally strong. Thus a major task in designing a recompetition for NIE-funded labs is deciding how strong are to be their links--particularly their channels of communication and/or influence--to whom.)

When properly revised, expanded and clarified Figure 1 should be able to facilitate the difficult task of assisting the director of NIE in the clarification of options for the role, governance and funding of the NIE labs. By all means give me a call (617/369-9779) or drop me a note (85 Jennie Dugan Rd., Concord, MA 01742) if you think of ways to make Figure 1 more useful when we reassemble in September. See you then.

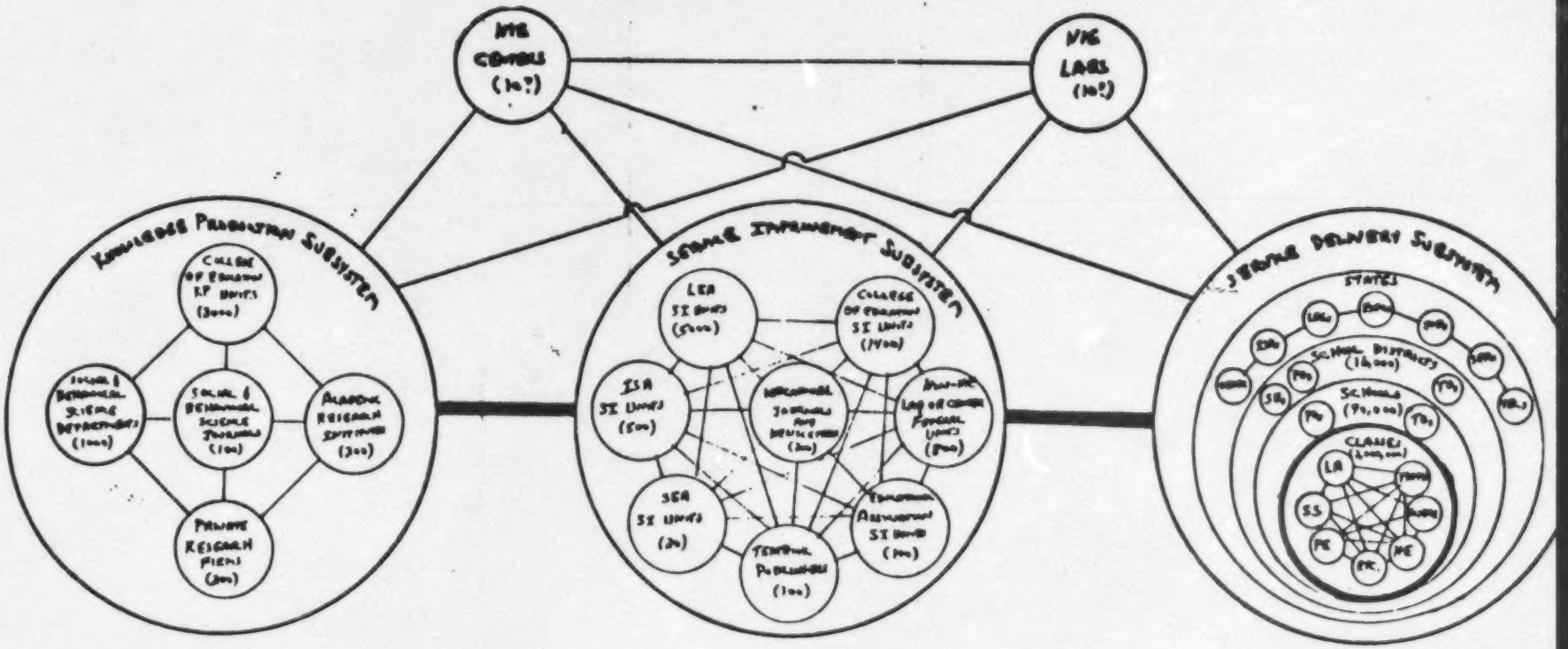
FIGURE 1

A GENERIC MODEL OF

THE AMERICAN EDUCATIONAL SYSTEM

(from the perspective of NIE's Labs and Centers)

[circles not drawn to scale]



Excerpts from Supporting Statement for an "Option 4" on Personnel Development.
Prepared for the Study Group by Dr. Robert Egbert.

I perceive that at the present time no one in the R&D or teacher education community is in serious dialogue with policy makers. Of course, that is not quite true. There has been significant dialogue between CEDaR and various committees of Congress. Furthermore, there has been increasing discussion between AACTE and Congress and between state level teacher education associations and state policy makers. In addition, the labs have a great deal of contact with the chief state school officers--but little with anyone else at the policy level.

My perception is that NIE funded R&D centers and Regional Laboratories communicate with schools, but primarily at the individual school and teacher level, and that they have very little impact on what happens in the vast majority of schools. There are too many schools and too few laboratories and R&D centers for them to have a very widespread impact. R&D centers and Regional Laboratories have little contact with schools of education.

Schools of education have major responsibility for the initial preparation of teachers, superintendents, principals, and other school personnel. They also do some continuing education with these same groups, primarily through their graduate degree programs. Some small number of schools of education work with school districts through various service programs--school surveys, assistance in various planning and personnel issues, etc. But for a variety of reasons, schools of education faculties have almost entirely "journal" contact with the research literature. This contact is not the sort to have

major program impact. Journal articles alone are not easily converted into course and program changes. Furthermore, of the more than 1200 departments and schools of education--almost every one of which has been approved by a state department to offer teacher education--the majority have only undergraduate programs and their faculties are not expected to do research nor are they provided either time or assistahce in keeping current with crucial research..

--The model modification I am suggesting would involve much greater contact between labs and centers and (a) policy makers and (b) schoo'ls and departments of education. It would not eliminate their contacts with schools because only through such contacts can they keep in touch with the real world, but it would increase dramatically their work with schools of education.

The proposed modification in the model would require a substantial effort in working with school and department of education faculties. It may also require that chief state school officers make tougher decisions in deciding what teacher education programs to approve.

Recommendation for an NIE Educational Sciences Initiative

Education is an applied field practice. Like engineering, which has applied research from mathematics and physics, education has applied research from such social sciences as psychology and sociology. Similarly, the practice of medicine applies knowledge from fields such as anatomy, physiology, chemistry, and biology. It is time for education to benefit from the experiences and accomplishments of successful applied professions. Recent research concludes that great educational improvements can be realized by applying knowledge from the physical and biological sciences in addition to the social sciences.

We submit that learning, contrary to widespread belief, is not a simple process that can be taken for granted. Rather, true understanding of the learning process involves knowledge of anatomy, physiology and chemistry. To be sure, if educational applications are to rise above opinions on the obvious, more knowledge is needed on the neural connections among the eyes, ears, brain, tongue, and hand. Educators need to know about detailed brain level training and the presence or absence of chemicals crucial for learning. In short, our vision calls for encouraging and funding long-term interdisciplinary research on educational questions by teams of physiologists, chemists, engineers, psychologists, sociologists, teachers, administrators, and educational professors. Education in the 21st Century must be placed on a more scientific base integrating new knowledge with proven educational experiences.

It is therefore recommended by the Study Group on Regional Laboratories that the Director of the National Institute of Education commission a Panel for the Design of an Educational Sciences Initiative. The Panel should be given four related responsibilities.

1. To identify present and future themes of basic research in such fields as chemistry, physiology, sociology, psychology and engineering that may hold revolutionary potential for education;

2. To design a system for tracking such research, for correlating it with known and anticipated areas of need in education, and for beginning educational research, development, and transformations of this research as early as appropriate;

3. To describe the Initiative and a funding process to accomplish such research, development and transformations;

4. To recommend both a short and a long range funding level for the functions and systems describe which will entice researchers in applicable sciences to attend to educational questions; and

5. To describe general guidelines appropriate for the educational research and user communities to consider as they carry out the transformation of knowledge to materials and processes useful for schools.

The Panel should have a twelve to twenty-four month life; its members should be scientists, educational researchers, parents, teachers, state and district administrators, elementary and secondary school principals, federal and state politicians, and business people. It should have ample funds for a full-time staff and for travel, consultation, commissioned papers, and meetings.

Invited Presentation by Dr. Larry Fish, Former Laboratory Director

NIE Advisory Committee on Labs
Washington, D.C.
September 21, 1983

One thing should be clear at the outset, I am a believer -- a strong believer in regional educational laboratories. I believe they are the most creative idea, process, or structure we have in American education to provide research and development support for the improvement of the American Educational System.

Now I don't believe that labs are all equally successful in accomplishing this high purpose, nor do I believe that any of them are perfect institutions. But I do believe that we have important institutions in laboratories -- that they are a key element in an effective research and development system for this country and that they should be nurtured and strengthened by NIE and by the state and regional educational institutions involved in their development and their use.

Laboratories are a unique resource -- a potentially powerful resource for NIE, the Department of Education, State Educational agencies, colleges and universities and local school districts.

Their mission is to link the educational institutions of a region to provide research, development, and dissemination support services in a cooperative effort for the improvement of educational practice.

The work of laboratories can and should be a demonstration that institutions working together, sharing resources expertise, and effort can make a significant difference in educational practice and educational results.

Labs are uniquely capable of providing this linkage mechanism for the networking which needs to take place around any problem area receiving attention. Labs are neutral agencies, able to provide the setting for cooperative action among competing agencies and across state boundaries. They should and can be seen as the extension of the capabilities of each and all agencies in r, d, & d work on educational problems.

Laboratories should involve all educational agencies of a region in their conceptualization, development, governance, program work, and accountabilities processes. The structure should provide dual accountability mechanism. A lab must be accountable to its constituent or member agencies for effective work on meaningful problems. In other words, it must be helpful to those agencies in improving educational practice.

Second, a lab must be accountable to its funding source (NIE or other) for use of resources within government regulations for contract or grant performance.

Again, carrying out these ideas about what a lab is, should be, or can be, is no simple task and no lab is perfect. In fact, no institution is perfect. Human beings make institutions work and of course, human beings are not perfect -- present company excepted, of course!

So what's the answer -- I believe it is to know what we believe in and stand for; make explicit the principles on which we are to build our institutions; and then work as hard as we can to build institutions which reflect those principles.

That's what I have been trying to make clear to you today -- the principles which I believe should characterize an institution like a regional educational laboratory.

1. It should be an r & d support agency for all institutions and groups charged with the responsibility of operating educational programs.
2. It should be an r & d support agency for groups charged with the responsibility for educational policy formulation.
3. It should involve all of these constituent agencies and groups in the formulation of its structure, its programs, and its governance; and should ultimately be accountable to these agencies and groups for the relevance and quality of its work.

4. It should be a neutral agency and provide a setting for the involvement and participation of all agencies and groups in its work, both as the recipients of the work and as resources for carrying out the work.
5. It should: (a) provide a structure for pro-active work in identifying educational problems and creative new approaches; (b) it should be a working demonstration of the application of research and development processes and products to the solution of the real educational problem of its clients and constituent agencies.
6. It should be an institution which reflects its dual responsibility and accountability - to the region for a regional r & d agenda, and r & d support for regional educational problems and to the NIE and other government agencies for r & d work on national educational priorities.

By the way, I do not see these dual roles as contradictory. For example, the full utilization of the report of the Commission on Excellence (a national agenda item) becomes a regional, state, and local agenda item and laboratories can become the catalyst or networking agent in a region for providing the support necessary for achieving the most effective use of this valuable report for improving our educational system.

I've heard staff at NIE say many times - "there can be several models for a regional laboratory." I agree with that point. However, I also firmly believe that laboratories must reflect certain basic characteristics, certain principles of operation as I've described today-- if they are to fulfill the purpose for which they were created.

Option 4: Laboratories Providing Direct Service to Local Schools

Rationale. Using direct service strategies labs could work with only a small sample of the districts and schools in the nation. However, two factors still make this an attractive strategy for labs. SEAs now have their resources and staffs so strained that many can do little to assist locals engaged in school improvement. This makes the traditional lab strategy of working with and through SEAs less promising. On the other hand, labs, by working with those LEAs most interested and most ready, could create school improvement demonstrations, could learn about how to carry out school improvement processes better, could develop and test school improvement resources, and could build support networks among innovative schools.

Purposes. The purpose of laboratories would be to stimulate improved practice at local school and classroom levels using direct assistance strategies.

Clients. Labs would work in direct research and assistance strategies with districts and schools where there was high interest and readiness for improving practice through the application of research. Labs would continue to work with SEAs, but principally when such activity would enhance opportunity for local impact. For example, labs would work closely with SEAs in planning and carrying out statewide school improvement efforts.

Functions/What labs do. Lab activities would include:

- Building networks of local educators (teachers, principals, etc.) engaged in co-investigative research with lab (and center) researchers on school improvement issues;
- Providing assistance and building networks of local educators engaged in implementing research-based improvement;
- Gathering and analyzing data on effectiveness of research-based improvement efforts. Making strategies and effectiveness data available to other organizations engaged in improvement; and
- Developing research syntheses and implementation materials and strategies.

Source of priorities. Labs' need assessments would focus on district, school and classroom problems and would include practitioners at those levels in establishing priorities.

Degree of NIE coordination. NIE would provide coordination for helping labs work together to share resources across regions, to aggregate and disseminate what was learned and accomplished, and to facilitate cooperative activities across more than one region. Centers and other NIE funded research projects would provide research outcomes, would cooperate in field testing, would provide technical assistance for practitioner research networks, and would have access to those sites for their own research on teaching and school and classroom management.

Governance. Labs' boards would draw heavily from local educational practitioners for their membership. SEA representatives and researchers would also hold membership on lab boards.

Regionality. Labs would serve regions of no more than three or four states for a toal of 14 to 17 regions. This would make it easier for labs to make choices and form relationships at the local level, while still encouraging sharing and cooperation between states.

Funding. Labs would be more compact than at present, focusing only on school improvement. Funding per lab would be slightly reduced ($1.5-1.8M), but overall funding for labs would increase. The level of funding would be mainly determined by the number of districts, schools and classrooms in the region.

Advantages

- Would help a limited number of practitioners and children directly.
- Would be highly visible to the public in the sites served.

Disadvantages

- Each lab could work with only a limited number of schools. Selecting those schools would be a difficult and controversial process.
- The approach is on a view that modeling and demonstration are effective dissemination strategies, a view not well supported by research on organizational change.

Option 5: A System of Laboratories Specializing in Various Substantive Areas

Rationale and Purpose: The laboratories would function as a nation wide system for assisting local schools in application of substantive research in specific priority areas, e.g., reading, math, finance, professional development, etc. Generalists would continue to handle some dissemination functions, but the emphasis would shift toward specialist staffing in each regional laboratory and in a new class of specialized laboratory units that would provide leadership nationwide for dissemination in each priority substantive area. These new specialized units, which might be funded competitively at regional laboratories or R&D centers, would create a strong connection between the network of regional laboratories and the specialized ERIC Clearinghouses, R&D centers etc., that are pertinent to each of the priority topical areas.

Clients: Getting the best from research into the hands of policymakers and practitioners would be the primary aim; that objective would achieved by ensuring that high quality knowledge resources were easily accessible to the specialists (and generalists) on whom policymakers and practitioners depend for information, assistance, and training.

Functions/What Labs Do. The regional labs would emphasize dissemination--using both proactive and responsive approaches. Each would have a system set up to call information to the attention of educators in the context of their local need and a system that provides information in conjunction with topical specialists (from the laboratory or other organizations) who are able to work knowledgeably with local staff in a given area. In addition to technical assistance and information provision, laboratories can serve other functions logically related to the technical assistance efforts—for example, where experiences in the field or the creative effort of topical specialists leads to well-conceived development projects that support technical assistance functions. Another source for such developmental or applied research efforts could be competitive RFP's conceived in conjunction with the field and NIE staff, and then planned and procured by the NIE program staff in the conventional competitive procurement process.

Sources of Priorities. Set by teachers, administrators, etc., on a general, nationwide basis with input from research communities to identify research that is ready for application and determine what needs to be done to transform it and get it into use.

Degree of NIE Coordination. NIE would have a major role in establishing and coordinating the overall system, but little or no role in individual activities except to make information available from current NIE research programs.

Interconnections. Extensive, as outlined above, including links with professional organizations, networks of researchers in topical areas, etc.

Regionality and Governance. A mixed regional/nationwide system is envisioned.

Advantages

- The approach would focus expertise and resources on priority knowledge bases that are in demand and that offer major opportunities.
- It can be highly effective when researchers are able and willing to work directly with practitioners wanting to implement their recommendations and products.
- Constructive lab and center cooperation could result.

Disadvantages

- The regional basis of lab ownership would be lost.
- The lab center distinction would be confused.
- The approach largely ignores the need for sustained process help, which research has shown essential for institutionalizing significant school improvements.
- Few researchers are really able and willing to do both research and service.
- Little or no provision is made for studying and improving dissemination and utilization functions.
- A major policy change would be required: each lab would directly serve any client in the country, without regard for regional service areas.
- The subject-area focus could leave major gaps in services provided.
- The ratio of clients to lab resources is too high for direct services to be feasible. This approach is too intensive for available resources.